



# DRINKING WATER QUALITY REPORT



## Consumer Confidence Report 2019

The City of Cottage Grove is pleased to present you with this year's annual Water Quality Report. This report is designed to inform you about the quality of drinking water and services we deliver to you every day. Our constant goal is to supply you with a reliable supply of high quality drinking water, and we are committed to ensuring its quality. If you have any questions about this report or your water utility, please contact Ray Pardee, Water Production Superintendent, at: (541) 942-3349.



Cottage Grove gets its drinking water from a surface intake on the Row River.

## FROM THE SOURCE: INTAKE ON THE ROW

### AT A GLANCE: COTTAGE GROVE WATER CUSTOMERS

CITIZENS SERVED: 10,140

METERED ACCOUNTS: 4,504

ACTIVE ACCOUNTS: 3,851

Cottage Grove's drinking water supply comes from surface water through an intake facility located on the Row River. The intake is within the Coast Fork Willamette Sub-Basin of the Willamette Basin. The streams that contribute to the intake have a total tributary area of approximately 371 square miles.

The sources of drinking water (both tap water and bottled water) can be from wells, streams, rivers, reservoirs or springs. As water travels over the surface of the land or through the ground it may pick up contaminants. Contaminants that may be present in source waters include:

- Microbial such as bacteria or viruses, which may come from sewage treatment plants, septic systems, agricultural operations and

wildlife

- Inorganic such as salts or metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
- Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses
- Organic chemicals contaminants, including synthetic and volatile organic chemicals, which are such as by-products of industrial process petroleum production and can also come from gas stations, urban stormwater runoff and septic systems
- Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

The Environmental Protection Agency (EPA) prescribes regulations which limit the amounts of certain contaminants in water provided by public water systems.

The Food and Drug Administration

(FDA) prescribes regulations for bottled water. All of Cottage Grove's drinking water is properly and professionally treated before it is distributed to the consumer.



**The City of Cottage Grove recognizes the importance of identifying contaminants in the water. With the aid of online process analyzers, the operators continuously monitor both onsite and remotely the water treatment process 24 hours a day, seven days a week, 365 days a year.**

The City's water treatment plant operators are state certified and complete required educational courses to maintain certification annually and to assure technical competence in the most recent advances in water treatment. Water treatment plant operators sample and test the water, according to Federal

and State laws, screening for any of the approximately 91 currently regulated contaminants that could be in your drinking water. Currently the water samples are sent to certified laboratories accredited by the Oregon Environmental Laboratory Accreditation Program in Oregon.



## BY THE NUMBERS: COTTAGE GROVE'S WATER QUALITY ANALYSIS

The following tables show the results of Cottage Grove's water quality analysis. Every regulated contaminant that was detected in Cottage Grove's water during testing from January 1, 2019 to December 31, 2019 is listed. All test results were below the Maximum Contaminant Levels (MCLs). The regulations do not require the water to be tested for all (approximately 91) of the regulated contaminants each and every year. The data presented in the report are from the most recent testing done in accordance with the regulations.

In these tables you may find many terms and abbreviations you might not be familiar with. To help you better understand the terms used in the tables, definitions are provided below.

### DEFINITIONS

**Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Lead** – Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in a household should be identified and removed, replaced or reduced.

**Maximum Contaminant Level Goal (MCLG)** – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a

drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Nephelometric Turbidity Unit (NTU)** – Nephelometric turbidity unit is an empirical measure of the clarity of water. Turbidity in excess of 5 NTU is just visibly noticeable to the average person.

**Non-Detects (ND)** – Contaminant not detectable at laboratory testing limits.

**Parts Per Billion (PPB) or Micrograms Per Liter (ug/L)** – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts Per Million (PPM) or Milligrams Per Liter (mg/L)** – One part per million corresponds to one minute in two years, or a single penny in \$10,000.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Turbidity** – Turbidity is a measure of the cloudiness of the water. The City monitors it because it is a good indicator of the effectiveness of the treatment process. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

### Key To Abbreviations In The Tables

AL	Action Level	N/A	Not Applicable
LRAA	Locational Running Annual Average	pCi/L	picocuries per liter (a measure of radioactivity)
MCL	Maximum Contaminant Level	PPB	Parts Per Billion
MCLG	Maximum Contaminant Level Goal	PPM	Parts Per Million
mg/L	Milligrams Per Liter	RAA	Running Annual Average
MRDL	Maximum Residual Disinfectant Level	SMCL	Secondary Maximum Contaminant Level
MRDLG	Maximum Residual Disinfectant Level Goal	TT	Treatment Technique
ND	Non-Detects	ug/L	Micrograms Per Liter
NTU	Nephelometric Turbidity Unit		



Cottage Grove's Water Treatment Plant opened in 1993 with a production capacity of 2 million gallons per day. Previously, the City utilized a treatment plant at Layng Creek. In 2008, the plant's production capacity was expanded to 4 million gallons per day and the filtration process was changed from rapid sand to micro-filtration membranes. The plant is currently in the process of expanding its production capacity to 6 million gallons per day.

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## ROW RIVER WATER TREATMENT PLANT

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity - Single Measurement	Highest No	0.045	NTU	N/A	> 5 TT	Soil Erosion
Turbidity - Monthly Percentage	Lowest No	100%	NTU	N/A	95% ≤ 1 TT	Soil Erosion
<b>WATER DISTRIBUTION SYSTEM</b>						
Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Inorganic Contaminants</b>						
Copper (last test date 2018)	No	90th% value = 0.023	PPM	1.3	AL = 1.3 Zero sites exceeded the action level	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (last test date 2018)	No	90th% value = 4	PPB	0	AL = 15 Zero sites exceeded the action level	Corrosion of household plumbing systems, erosion of natural deposits
<b>Disinfection Byproducts, Byproduct Precursors, and Disinfectant Residuals</b>						
TTHM (Total Trihalomethanes)	15.2	Range = 15.2 - 33.7 LRAA = 22.6	PPB	N/A	80	By-Product of drinking water disinfection
HAA5 (Haloacetic Acid)	10.5	Range = 10.5 - 19.1 LRAA = 15.1	PPB	N/A	60	By-Product of drinking water disinfection
Chlorine	0.14	Range = 0.14 - 0.82 RAA = 0.52	PPM	MRDLG 4	MRDL 4.0	Water additive used to control microbes
TOC of Finished Water (Total Organic Carbon)	0.58	Range = .58 - 1.11 RAA = 0.90	PPM	N/A	2 TT	Naturally present in the environment

## Detected Levels of Unregulated (Secondary) Contaminants

Contaminant	Level Detected	Unit of Measure	SMCL*	Likely Source of Contamination
Sodium (Last test date 2011)	4.05	mg/L	20	Naturally present in the environment and a water treatment additive
Sulfate (Last test date 2011)	9.38	mg/L	250	Naturally present in the environment
Hardness of Finished Water Calcium Carbonate (CaCO <sub>3</sub> )	Range = 18 - 36 Avg = 26	mg/L	N/A	Naturally present in the environment
pH of Finished Water.	Range = 7.1 - 8.5 Avg = 7.9	pH Unit	6.5-8.5	Naturally present in the environment
Bromodichloromethane.	Range = 1.7 - 3.4 Avg = 2.5	PPB	N/A	By-Product of drinking water disinfection
Chloroform	Range = 13.5 - 30.2 Avg = 22.8	PPB	N/A	By-Product of drinking water disinfection
Dichloroacetic Acid	Range = 3.0 - 9.4 Avg = 6.0	PPB	N/A	By-Product of drinking water disinfection
Trichloroacetic Acid	Range = 5.4 - 16.1 Avg = 9.9	PPB	N/A	By-Product of drinking water disinfection

\* SMCL - Secondary Maximum Contaminant Level. Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

It is reassuring to note that all our testing results were below the MCLs and represent a high quality of drinking water.

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Cyanotoxins produced by blue-green algae in Dorena Reservoir represent a potential contaminant for Cottage Grove's drinking water. The Department of Environmental Quality (DEQ) operates the only laboratory that currently meets the Oregon Health Authority's laboratory certification requirements to test for cyanotoxins produced by Blue Green Algae. It is vital the Oregon Legislature provides funding to DEQ for continued operation of the laboratory in testing for cyanotoxins of water throughout the state.

## Water Source Information

Two Source Water Assessments have been completed by the Department of Environmental Quality (DEQ) to identify the surface areas (and/or subsurface areas) that supply water to the City of Cottage Grove's public water system intakes and to inventory the potential contaminant sources that may impact the water supply. Potential contaminant sources or "sensitive areas" identified in the watershed include managed forestlands, campgrounds and recreational areas

(Dorena Lake – Cyanotoxins), nurseries, quarries, several parks, residential areas with septic systems and wells, gas stations (currently active and historic), a former mill, and the drinking water treatment plants. These "sensitive areas" are the main existing potential sources of contamination that could, if improperly managed or released, impact the water quality in the watershed. The information in the assessments provides a basis for prioritizing areas in and around our community that are most vulnerable to potential impacts and can be used by the City of Cottage Grove community to enhance the City's Drinking Water Protection Plan.

Assessments were completed to provide information that the City of Cottage Grove's public water system staff/operators, consumers and community citizens can use to refine the developed strategies to protect the source of their drinking water, and to minimize future public expenditures for drinking water treatment. The City of Cottage Grove's Source Water Assessment Reports (the 2005 original and the 2018 updated) provide additional details on the methodology and results of the assessments. The full reports are available for review at: **Cottage Grove Public Library, 700 East Gibbs Avenue.**

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Flushing your water tap for 30 seconds to two minutes after your water has been sitting for several hours can help minimize lead exposure.

## Information on Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Cottage Grove is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. The City of Cottage Grove maintains a continuous Corrosion Control Program for the drinking water. The pH of the water is tested daily to ensure our water is not corrosive to plumbing components. Our lead and copper test results prove our program's effectiveness.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline (1-800-426-4791)** or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead). All sources of water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the

**EPA's Safe Drinking Water Hotline (1-800-426-4791).**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791).**

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## Additional Information

We want our valued customers to be informed about their water quality. If you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the second and fourth Monday of each month at 7:00 p.m. in the City Hall Council Chambers.

The City of Cottage Grove considers it our paramount responsibility to supply safe water for the health and future of our community. If you have any questions, please call our office at: (541) 942-3349.

Access to the 2019 Consumer Confidence report and previous year's Consumer Confidence Reports are available electronically online at: [www.cottagegrove.org/ccr](http://www.cottagegrove.org/ccr) or follow the link on the City's webpage at: [www.cottagegrove.org](http://www.cottagegrove.org)

## Water System Planning and Improvements

GSI Water Solutions, Inc., a professional consultant regarding water rights, completed drafting the City's State mandated Water Management and Conservation Plan. Staff has reviewed and made necessary revisions to the draft plan. The City is currently awaiting comments from the Department of Fish and Wildlife with regard to the plan before presenting the plan to the City Council this spring for consideration and possible adoption.

City staff has located three potential high elevation water reservoir sites that meet the requirements listed in the current Master Plan. The new sites are needed to supply water to undeveloped properties above 750 feet in elevation with adequate water pressure. The high level sites will improve the City's ability to provide adequate volumes of water to fight fires. One site is located east of Interstate 5 approximately 300 feet in elevation higher than current City reservoirs. The other two sites are on the west side of town, one to the North above the Sunrise Ridge Development and the other to the South above Sweet Lane. The City has turned in a land use application to Lane County for a new reservoir at the end of 22<sup>nd</sup> Street, and a feasibility study for the Sweet Lane site is currently being completed. A design is in the works for a possible reservoir on Sunrise Ridge. Recently, the City also gave away 385 trees to local residents to replace those lost to damage during an extensive snowstorm in early 2019. These trees will provide shade, lower air temperatures and should lower irrigation costs for these residents.

### ADDITIONAL WATER QUALITY INFORMATION

Environmental Protection Agency  
at: [www.epa.gov/safewater/](http://www.epa.gov/safewater/)

Oregon Health Authority/Drinking Water Services at:  
[www.healthoregon.org/dwp](http://www.healthoregon.org/dwp)

National Sanitation Foundation at:  
[www.nsf.org](http://www.nsf.org) or call  
1-877-8NSF-HELP

American Water Works Association (AWWA): [www.drinktap.org](http://www.drinktap.org) and [www.awwa.org](http://www.awwa.org)

In January of 2019 West Yost and Associates was hired to engineer expanding the Row River Water Treatment Plant to increase treated water production from 4 million gallons per day (MGD) to 6 MGD. The additional capacity will improve plant redundancy ensuring the ability to meet treated water needs of City residents and businesses. The City awarded a bid to Pacific Excavation in the fall of 2019 for expansion of the Water Treatment Plant. Construction is expected to be completed, and the expansion should be operational, by the end of summer, 2020.



Above: The Row River Water Treatment Plant's new four-person team accepts an award in 2017 from the Oregon Health Authority that recognized outstanding plant performance during the final Water System Survey that year.

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**ROW RIVER WATER TREATMENT PLANT:** The City continues to work on perfecting water rights for the Row River Water Treatment Plant. Currently 4 MGD of water rights are perfected for the plant with 2 MGD under permit. City staff is working with GSI Water Solutions, Inc. to perfect the water rights under permit and hopes to have the State of Oregon Water Resources Department approval by the end of 2020.

## Water System Planning and Improvements (continued)

**COMING SOON: AUTOMATED WATER METERS:** In the late fall of 2019, the City Council approved the replacement of the current manual read water meters to automated water meters. The automated meters will send water usage information every 15 minutes to City Hall with the ability to alert City staff of any sudden water usage surges that will indicate a water line break. The automated meters will save employee costs and reduce water loss and potential property damage. Installation began in February and is expected to be completed by July of 2020.

**UPDATES TO LINES, HYDRANTS:** In 2018, the Utility Maintenance Division installed 660 feet of new 8" water mainline on West Chestnut Avenue replacing several 2" water lines that were leaking and reached their end of life. The Utility Maintenance Division also installed 5 new fire hydrants and installed 2 new isolation valves. The new isolation valves will reduce the time required to shut off the water in the mainline during an emergency. The City also installed two automatic flushers in the water system that flush the pipes at dead ends and loops in the water system.

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**FLUSHING THE CITY'S FIRE HYDRANTS:** In November of 2019, City personnel flushed all fire hydrants in Cottage Grove. A 10-minute flush of water through each hydrant was completed to improve water quality. High-velocity water was used to scrub the pipes and inhibit the growth of harmful biofilm in nearby pipelines and help maintain the presence of residual chlorine in the pipes. The City reported the successful completion of the operation, the first of its kind in some time, which also offered the opportunity to test the function of each hydrant.

## City of CG Wastewater Treatment Plant

In the spring of 2020 the Public Works and Development Department staff will start construction of the Wastewater Treatment Plant Treated Effluent Expansion Project. Once completed, treated effluent will be used to irrigate City parks eliminating the use of treated drinking water. This conservation project will reduce the amount of water removed from the Row River during summer months and extending the water treatment plant's ability to serve future growth.

